

CLAIMS

1. A method of providing media content information in a system which uses a Content Directory Service (CDS) to store the media content information, comprising:
5 receiving, from a querying device, a query for media content information from the CDS of a serving device;
using knowledge of the CDS of the serving device, which has been previously acquired, to translate the query into an optimised query;
10 querying the CDS of the serving device using the optimised query; and, providing a response to the querying device.
2. A method according to claim 1 wherein knowledge of the CDS is acquired by querying the CDS of the serving device.
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3. A method according to claim 2 wherein knowledge of the CDS is acquired by querying the CDS of the serving device using a set of predetermined queries.
- 20 4. A method according to claim 2 or 3 wherein knowledge of the CDS is acquired by querying the CDS using queries received from the querying device and analysing responses received from the serving device.
5. A method according to any one of the preceding claims wherein
25 the knowledge of the CDS comprises one or more of the following properties of the CDS: structure, scope, object typing, classification, metadata availability, content distribution, search facilities and querying performance.
6. A method according to any one of the preceding claims wherein
30 knowledge of the CDS of a serving device is acquired when a serving device joins the system.

7. A method according to any one of the preceding claims further comprising updating knowledge of the CDS when an update occurs to the CDS.

5 8. A method according to claim 7 further comprising updating knowledge of the CDS in response to receiving a notification from a CDS that an update has occurred.

9. A method according to any one of the preceding claims further
10 comprising validating the knowledge of the CDS on a periodic basis.

10. A method according to any one of the preceding claims wherein the step of translating the query into an optimised query converts a query specifying a search operation into an optimised query specifying a browse
15 operation where the knowledge of the CDS indicates that searching is not supported.

11. A method according to any one of the preceding claims wherein knowledge of a plurality of different CDSs, each corresponding to a different
20 serving device, is acquired.

12. A method according to any one of the preceding claims further comprising using knowledge of the querying devices.

25 13. A method according to any one of the preceding claims wherein the querying device is physically separate from the device which implements the method and the method is provided as a service to querying devices in the system.

30 14. Software for causing a processor to perform the method according to any one of the preceding claims.

15. Apparatus for providing media content information in a system which uses a Content Directory Service (CDS) to store the media content information, comprising:

- 5 means for receiving, from a querying device, a query for media content information from the CDS of a serving device;
- means for using knowledge of the CDS of the serving device, which has been previously acquired, to translate the query into an optimised query;
- means for querying the CDS of the storage device using the optimised query; and,
- 10 means for providing a response to the querying device.

16. Apparatus according to claim 15 further comprising means for acquiring knowledge of the CDS by querying the CDS of the serving device.

- 15 17. Apparatus according to claim 16 wherein the means for acquiring knowledge of the CDS is arranged to query the CDS of the serving device using a set of predetermined queries.

- 18. Apparatus according to claim 16 or 17 wherein the means for 20 acquiring knowledge of the CDS is arranged to query the CDS using queries received from the querying device and to analyse responses received from the serving device.

- 19. Apparatus according to any one of claims 15 to 18 wherein the 25 knowledge of the CDS comprises one or more of the following properties of the CDS: structure, scope, object typing, classification, metadata availability, content distribution, search facilities and querying performance.

- 20. Apparatus according to any one of claims 15 to 19 which is 30 arranged to acquire knowledge of the CDS when the serving device joins the system.

21. Apparatus according to any one of claims 15 to 20 which is arranged to update knowledge of the CDS when an update occurs to the CDS.

22. Apparatus according to any one of claims 15 to 21 which is
5 arranged to validate the knowledge of the CDS on a periodic basis.

23. Apparatus according to any one of claims 15 to 22 wherein the means for using the knowledge of the CDS is arranged to translate a query specifying a search operation into an optimised query specifying a browse
10 operation where the knowledge of the CDS indicates that searching is not supported.

24. Apparatus according to any one of claims 15 to 23 wherein the knowledge comprises knowledge of a plurality of different CDSs, each
15 corresponding to a different serving device.

25. Apparatus according to any one of claims 15 to 23 which is physically separate from the querying device.

20 26. A method according to any one of claims 1 to 13, software according to claim 14 or apparatus according to any one of claims 15 to 25 wherein the system is a Universal Plug and Play (UPnP) system.